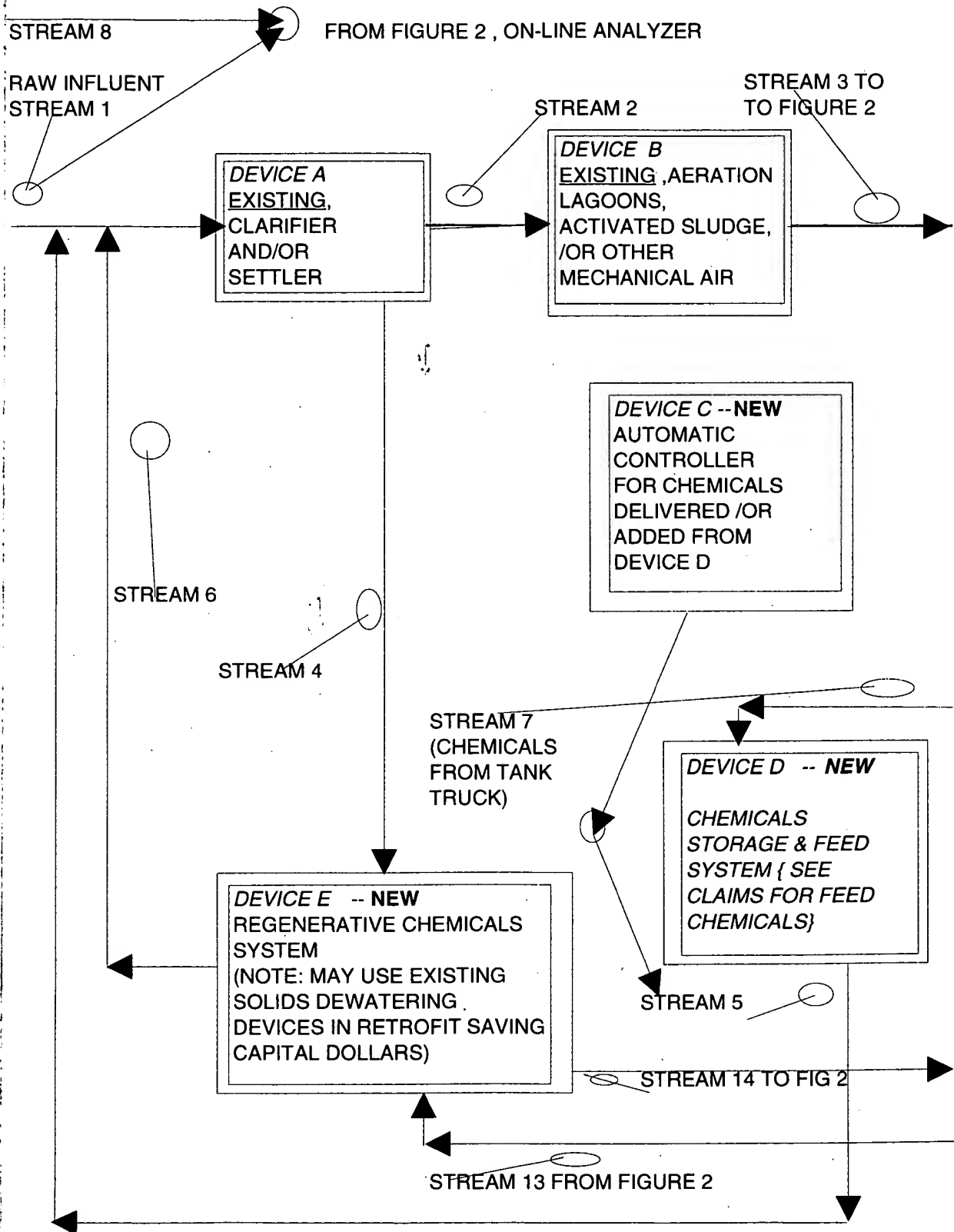


LAUREL SANDERS

FIGURE 1

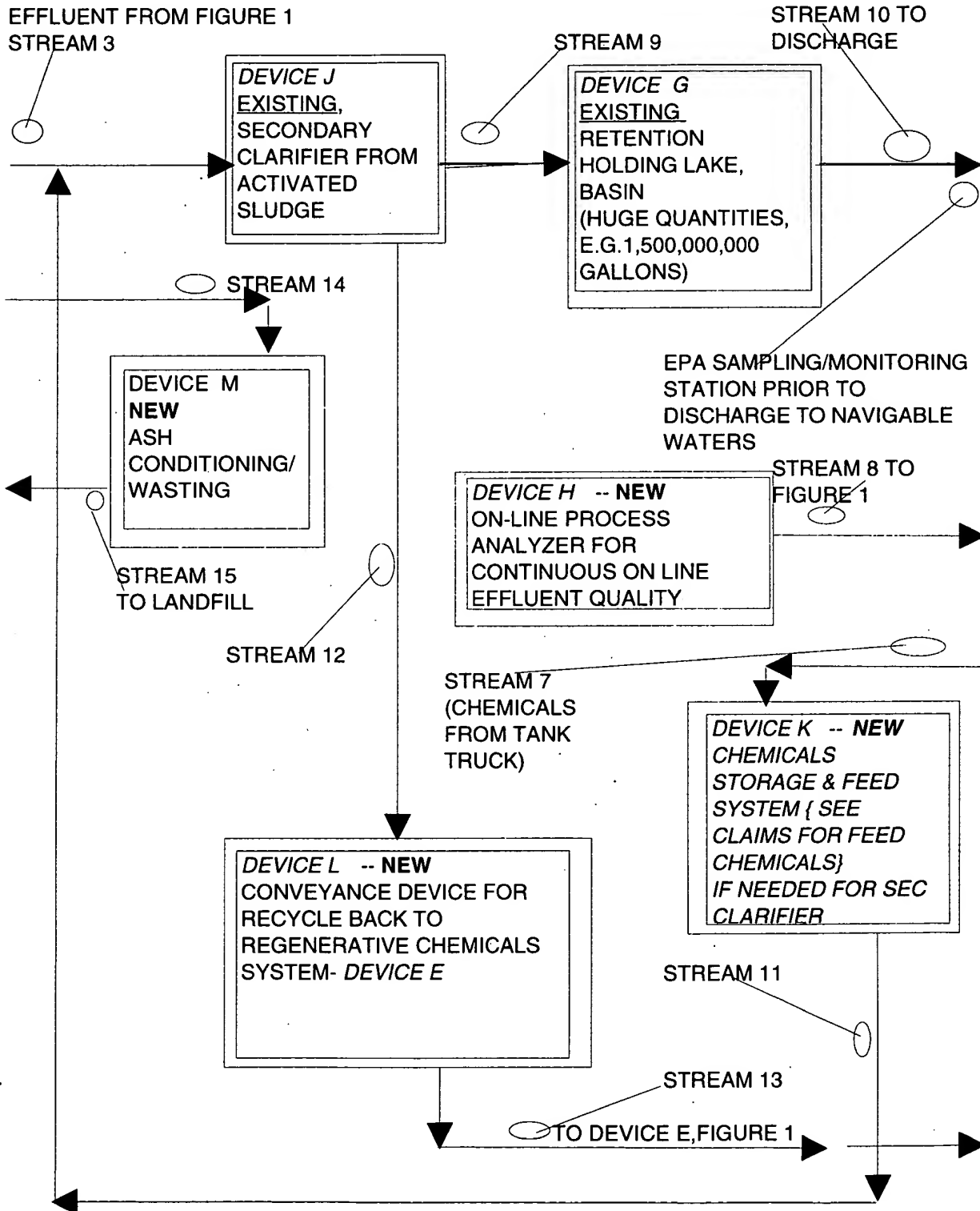
FLOW DIAGRAM TOXICS, ORGANICS, AND COLOR REMOVAL  
TECHNOLOGY PROCESS/OR METHOD FOR TOXICS, ORGANICS,  
COLOR REDUCTION OF ALL PULP/PAPER MILLS' WASTEWATERS



LAUNEL SANDERS

FIGURE 2

FLOW DIAGRAM TOXICS, ORGANICS, AND COLOR REMOVAL  
TECHNOLOGY PROCESS/OR METHOD FOR TOXICS, ORGANICS,  
COLOR REDUCTION OF ALL PULP/PAPER MILLS' WASTEWATERS



LAUNEIL SANDERS

FIGURE 3

EFFLUENT POLLUTANT QUALITY COMPARISON OF **NEW** TOXICS, ORGANICS  
AND COLOR REMOVAL PROCESS FOR PULP/PAPER MILLS' WASTEWATERS  
VS. OLD ART

CONCENTRATIONS ARE IN MGM/LITER

POLLUTANT	OLD ART	NEW
BOD5	250-300	40-65
COD	250-400	40-65
TOC	150-300	40-65
COLOR	1000-4000	100-250

STREAM 3 TO  
TO FIGURE 2

RAW INFLUENT  
STREAM 1

STREAM 2

DEVICE A  
EXISTING,  
CLARIFIER  
AND/OR  
SETTLER

DEVICE B  
EXISTING, AERATION  
LAGOONS,  
ACTIVATED SLUDGE,  
/OR OTHER  
MECHANICAL AIR

CONCENTRATIONS ARE IN MGM/LITER

POLLUTANT	OLD ART	NEW
BOD5	50-75	40-65
COD	250-400	40-65
TOC	150-300	40-65
COLOR	1000-4000	100-250

STREAM 6

STREAM 4

DEVICE E -- NEW  
REGENERATIVE CHEMICALS  
SYSTEM  
(NOTE: MAY USE EXISTING  
SOLIDS DEWATERING  
DEVICES IN RETROFIT SAVING  
CAPITAL DOLLARS)

STREAM 13 FROM FIGURE 2

DRAWING 3/4

LAUNEIL SANDERS

FIGURE 4

EFFLUENT POLLUTANT QUALITY COMPARISON OF **NEW** TOXICS, ORGANICS  
AND COLOR REMOVAL PROCESS FOR PULP/PAPER MILLS' WASTEWATERS  
VS. OLD ART

EFFLUENT FROM FIGURE 1  
STREAM 3

DEVICE J  
EXISTING,  
SECONDARY  
CLARIFIER FROM  
ACTIVATED  
SLUDGE

STREAM 9

DEVICE G  
EXISTING  
RETENTION  
HOLDING LAKE,  
BASIN  
(HUGE QUANTITIES,  
E.G. 1,500,000,000  
GALLONS)

STREAM 10 TO  
DISCHARGE

EPA SAMPLING/MONITORING  
STATION PRIOR TO  
DISCHARGE TO NAVIGABLE  
WATERS

CONCENTRATIONS ARE IN MGM/LITER

POLLUTANT	OLD ART	NEW
BOD5	50-75	40-65
COD	250-400	40-65
TOC	150-300	40-65
COLOR	1000-4000	100-250

CONCENTRATIONS ARE IN MGM/LITER

POLLUTANT	OLD ART	NEW
BOD5	50-75	40-65
COD	250-400	40-65
TOC	150-300	40-65
COLOR	1000-4000	100-250